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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

ROBERTSON, DAVID

ART UNIT

PAPER NUMBER

2121

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10/04/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/541,379	Applicant(s) TANAKA, OSAMU	
	Examiner Dave Robertson	Art Unit 2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/6/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is a Non-final First Office Action on the Merits. Claims 1-25 as originally filed on 7/6/2005 are examined herein.

Information Disclosure Statement

2. The information disclosure statement (IDS) filed 7/6/2005 is in compliance with the provisions of 37 CFR 1.97. However, foreign references listed and submitted therewith have been considered by the examiner only to the extent of the English language material provided as indicated on the PTO 1449 accompanying this office action (see "Abstract Only" in the Examiner Initials area of the foreign references).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-12 and 20-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 7, 11, and 12 recite in their preambles: *A process system....* However, it is not precisely clear what statutory class of invention the claim intends, as both a *process* and a *system* (as apparatus) are different statutory classes of invention. As can best be determined from the disclosure and claims, claims 1 and 7 will be interpreted as: *A system for process control...* Claims 2-6

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and claims 8-10 claims depend from claims 1 and 7 respectively and are similarly deficient.

Claim 6, 10, and 21 are additionally unclear because it recites "brief information..." as including "one or two or more possible reasons...and actions..." However, as computer apparatus does not store "reasons" and "actions" in as much as computers store textual descriptions or *information describing* reasons and actions, the claims will be interpreted as such.

Further,

Claims 11 and 12 recite phrases "...is off..." and "...nearly all..."

Claim 20 recites a display which "...is done on..." and

Claims 22-25 recite a computer performing control "...in a way which..."

However, in each of the above, the recited phrases render the claims indefinite because it cannot be determined precisely the scope and/or meaning of "is off", "nearly all", "is done on", or the actions or functions ascribed to "in a way which..."

Claims 24 and 25 recite: *A computer program containing software...*; however, as a *computer program* is not a thing, rather, a series of instructions to be performed by a computer, it is unclear how a computer program can *contain* software. Further noted is that computer programs per se, without embodiment on computer-readable medium for the purpose of execution on a computer, are non-statutory functional description material (see 35 U.S.C. 101 below).

Appropriate amendment or clarification is requested.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claim 24 and 25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 24 and 25 recite: *A computer program containing software...*

Computer programs per se, without non-transitory storage on computer-readable medium for execution on a computer, are non-statutory functional description material. As above under 35 U.S.C. 112, the claims do not clearly recite an embodiment allowing a computer to perform the instructions set out by the computer program or software, and are therefore the claimed invention(s) are ineligible for patenting under 35 U.S.C. 101.

Appropriate amendment is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-10 and 13-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Kitamoto et al. (US Pat. No. 7,047,100).

Examiner note: Citations to particular drawing figures, pages, and paragraphs of the prior art reference(s) relied upon in this office action, and any comments directed thereto, are provided where considered necessary to indicate relevant teachings in the prior art (see MPEP 706.02(j), 707); however, other portions of the prior art not specifically cited may also apply.

In formulating a response to rejections herein, Applicant is advised to consider the references *in their entirety* as well as the context of the teachings within the prior art and within what the prior art *as a whole* would have suggested to one of ordinary skill in the art at the time of invention.

Claim 1

Kitamoto et al. teaches **a process system comprising:**

a process apparatus which performs a predetermined process on an object to be processed (Figure 5 (1): see Substrate Processing Apparatus);
a plurality of detection means which detect statuses in the process apparatus (Figure 5 (115));

an abnormality detection section which detects an abnormality in detection information from the plurality of detection means (Figure 5 (115,117));

an alarm generation section which generates an alarm when the abnormality detection section detects an abnormality (Figure 5 (117));

an information storage section which stores the detection information from the detection means and alarm information as a process history of the process apparatus (Figure 5, (104, 121, 123, 162));

an alarm-related information acquisition section which acquires information relating to an alarm selected from generated alarms from the information storage section (Figure 5 (122));

and a display section which displays alarm-related information acquired by the alarm-related information acquisition section (Figure 5 (5, 321, 322) the "mail receiving part" and "web browser" displaying alarm related information from the Information Storage Server (2)).

Claim 2

Kitamoto et al. teaches **the process system according to claim 1, wherein the alarm-related information includes I/O address information relating to the alarm (Figure 5 (2) Information Storage Server (2); and Figure 7).**

Claim 3

Kitamoto et al. teaches **the process system according to claim 1, wherein the information storage section prestores brief information on alarms according to types of the alarms, and the alarm-related information**

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acquisition section selects brief information on a selected alarm, and selects sequential information leading to generation of the alarm from information stored as the process history in the information storage section in association with the brief information (Figure 5 (2) Information Storage Server).

Claim 4

Kitamoto et al. teaches **the process system according to claim 3, wherein the alarm-related information acquisition section selects I/O information around generation of an alarm corresponding to the sequential information leading to generation of the alarm from information stored as the process history in the information storage section** (Figure 5 (2) Information Storage Server; column 8, lines 15-23, noting a “time-series” log is “sequential information”).

Claim 5

Kitamoto et al. teaches **the process system according to claim 4, wherein the display section can display a first screen which displays the brief information on the selected alarm, a second screen which displays sequential information leading to generation of an alarm, and a third screen which displays I/O information around generation of an alarm** (Figure 5 (3) Support Computer (321, 322); column 12, lines 6-21, the web browser, mail part (brief information displayed), and column 23-30, noting that “screens” in the art can be physical as well as (multiple) logical distinctions between displayed information on output displays such as web browsers).

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Claim 6

Kitamoto et al. teaches **the process system according to claim 3, wherein the brief information stored in the information storage section according to the each alarm includes an ID of the alarm, contents of the alarm, one or two or more possible reasons for generation, and actions against individual reasons for generation** (Figure 5 Information Storage Server (2); column 8, lines 35-65).

Claims 7-10 recite “process systems” substantially as above for claims 1-6 and are similarly rejected for reasons given above for the respective claim and claim elements.

Claims 13-21 recite “process methods” for performing the functionality of claims 1-12 above, and are similarly rejected for reasons given above for the respective claim and claim elements, and further that Kitamoto et al. teaches a method of using systems on process apparatus accordingly.

Claims 22-25 recite computer-readable storage medium and computer programs for performing the methods and process systems of claim 1-21, and are similarly rejected for reasons given above, for the respective claim and claim elements, and further that Kitamoto et al. teaches computer-implemented systems and process control apparatus (Figure 5).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitamoto et al. as applied to claims 1-10 as above, and further in view of Havekost et al. (US Pat. No. 6,774,786).

Claims 11-12 recite “process systems” substantially as above, and are similarly rejected for reasons given above for the respective claim and claim elements. However, Kitamoto et al. does not expressly teach detecting an abnormality **when the information to be detected in the process apparatuses is off a predetermined range**.

Havekost et al. teaches in the art of the invention classes of alarms including abnormalities detected **when the information to be detected in the process apparatuses is off a predetermined range** (column 9, lines 46-65: “out of bound measurement”). It would have been obvious to one of ordinary skill in the art at the time of the invention to detect abnormalities and initiated alarms from general classes of known abnormalities, including when a *process apparatuses is off a predetermined range*, as this would have increased the utility of Kitamoto’s process control and alarm log and resolution information apparatus to known well classes of process alarm events.

Conclusion

11. The prior art made of record and listed on the attached PTO Form 892 but not relied upon is considered pertinent to applicant's disclosure.

In particular, each of:

Havekost et al. US 6774786 B1

Sanford et al. US 7328078 B2

Dorgelo et al. US 7538664 B2

Nguyen et al. US 7761172 B2

Eryurek et al. US 7702401 B2

teaches aspects of the disclosed and/or claim invention for storing process history and providing an operator with process history following an abnormal event (defined by various classes of event types), such that the operator may see only those log entries pertaining to the abnormal event, and take corrective action accordingly to prescribed countermeasures or instructions tailored to the cause and source of the abnormality in the industrial process.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dave Robertson whose telephone number is (571)272-8220. The examiner can normally be reached on 9 am to 5 pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dave Robertson/
Examiner, Art Unit 2121